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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/003,338	10/31/2001	Joseph G. Souza	MS164031.1 (4934)	5199

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SENNIGER POWERS LEAVITT AND ROEDEL
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EXAMINER

DU, THUAN N

ART UNIT PAPER NUMBER

2116

DATE MAILED: 09/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/003,338

Applicant(s)

SOUZA ET AL.

Examiner

Thuan N. Du

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5-31 and 33-50 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,5-31 and 33-50 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. It is hereby acknowledged that the following papers have been received and placed of record in the file: Amendment (dated 6/30/05).
2. Claims 4 and 32 have been cancelled. Claims 1-3, 5-31 and 33-50 are presented for examination.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims are rejected under 35 U.S.C. 103(a) as being unpatentable over Hernandez et al. [Hernandez] (U.S. Patent No. 5,752,050) and Fry et al. [Fry] (U.S. Patent No. 6,496,938).
5. Regarding claims 1, 17, 25 and 27, Hernandez teaches a method for signaling and waiting to suspend one or more of a plurality of devices , said devices being connected to a root hub via a communications medium [Fig. 1], the method comprising:

determining via a driver of at least one of the devices when the at least one of the devices is ready to be suspend (user_idle) [col. 2, line 61 to col. 3, line 39];

sending an idle request from the driver of the at least one of the devices to the root hub when the at least one of the devices is determined to be ready to be suspend [col. 3, lines 55-65; col. 6, lines 2-9; col. 7, line 66 to col. 8, line 3];

waiting, by the driver of the at least one of the devices that sent the idle request, to receive a call from the root hub to a callback function associated with the device [col. 9, lines 20-32]; and

execute by the driver the callback function to suspend the at least one of the devices that send the idle request [col. 6, lines 34-36].

Hernandez does not explicitly teach that maintaining a state associated with each of the other device when the device the send said idle request is powered down.

Fry teaches a power management method comprising the step of maintaining a state associated with each of other device when one of the devices powered down (the devices are connected in parallel) [Fig. 3, col. 7 line 51 to col. 8 line 10].

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Hernandez and Fry because it would increase the flexibility of the system by allowing each of the devices (connected in parallel) can be controlled independently.

6. Regarding claims 2 and 3, Hernandez teaches a computer including the root hub (21) and the device is a peripheral component associated with the computer (keyboard, mouse, etc.) [Fig. 1].

7. Regarding claim 5, Hernandez teaches that the devices each having an active state and an idle state [col. 2, lines 37-38] and wherein the devices are each ready to be suspend when in idle state [col. 2, line 55].

8. Regarding claim 6, Hernandez teaches that the devices comprise a plurality of nodes organized in a tree structure, and wherein the devices comprise child nodes of the root hub [col. 8, lines 13-16].

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9. Regarding claim 7, Hernandez and Fry together teach the claim method steps as claimed in claim 6. Therefore, Hernandez and Fry together teach the computer-executable instructions for carrying out the claimed method steps.

10. Regarding claim 8, Fry teaches that the nodes in the tree are connected via a USB [Fig. 2; col. 5 lines 55-61].

11. Regarding claims 9-14, Hernandez teaches that the at least one of the devices has one or more child nodes in the tree structure and wherein the at least one of the devices is ready to be suspended only when all of the one or more child nodes thereof is ready to be suspended [col. 8, lines 21-31; col. 8, line 64 – col. 9, line 11].

12. Regarding claims 15 and 16, Hernandez teaches sending an idle request comprises transmitting an input/output control request from the at least one of the devices to the root hub [col. 3, lines 10-35].

13. Regarding claim 17, Hernandez teaches that receiving, by the at least one of the devices, the call from the root hub to the callback function associated therewith and suspending the at least one of the devices in response to execution of the received callback function [col. 6, lines 34-36; col. 8, lines 4-7].

14. Regarding claims 18-22, Hernandez teaches the wake up process [col. 8, lines 37-63].

15. Regarding claim 23, Hernandez teaches sending a cancel request when the device is not ready to be suspended [col. 8, lines 26, 29-30].

16. Regarding claim 24, Fry teaches each of the devices is controlled independently [col. 9, lines 5-11].

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17. Regarding claims 25-31 and 33-50, they do not teach or further define over the limitations recited in the rejected claims above. Therefore, claims 25-31 and 33-50 are also rejected as being unpatentable over Hernandez and Fry for the same reasons set forth in the rejected claims above.

Conclusion

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thuan N. Du whose telephone number is (571) 272-3673. The examiner can normally be reached on Monday-Friday: 9:30 AM - 6:00 PM, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne H. Browne can be reached on (571) 272-3670.

Central TC telephone number is (571) 272-2100.

The fax number for the organization is (571) 273-8300.

19. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll free).



Thuan N. Du
September 15, 2005